IN THE CLAIMS:

1. (Currently amended) A medical device, comprising:

an encasement;

an electrical device disposed within said encasement;

a first electrical contact and a second electrical contact coupled to said electrical device;

a feedthrough assembly, comprising:

i) a ferrule extending through said encasement and having an inner surface and an outer surface,

ii) a terminal extending through said ferrule and having a first end extending into said encasement,

iii) a first conductive metal coating covering said first end, said first coating being more resistant to oxidation than said terminal,

iv) a body of insulation material disposed between said terminal and said ferrule inner surface for preventing said ferrule from electrically contacting said terminal;

v) a second conductive metal coating covering at least a portion of said ferrule outer surface, said second coating being more resistant to oxidation than said ferrule; and

a first connector for electrically coupling and mechanically engaging said first end with said first electrical contact; and

a second connector for electrically coupling and mechanically engaging said second conductive coating with said second electrical contact.

2. (Previously presented) A medical device according to claim 1, wherein said first conductive metal coating also covers an area of said terminal adjacent to said body of insulation material.

3. (Previously presented) A medical device according to claim 1, wherein said first connector comprises a crimping device.

4. (Previously presented) A medical device according to claim 1, wherein said first connector comprises a spring device.

5. (Previously presented) A medical device according to claim 1, wherein said first conductive metal coating entirely covers said terminal.

6. (Previously presented) A medical device according to claim 1, wherein said first conductive metal coating comprises one of a noble metal and a noble metal alloy.

7. (Previously presented) A medical device according to claim 1, wherein said first conductive metal coating comprises rhodium.

8. (Previously presented) A medical device according to claim 1, wherein said first conductive metal coating comprises ruthenium.

9. (Previously presented) A medical device according to claim 1, wherein said first conductive metal coating comprises palladium.

10. (Previously presented) A medical device according to claim 1, wherein said first conductive metal coating comprises gold.

11. (Previously presented) A medical device according to claim 1, wherein said first conductive metal coating comprises platinum.

12. (Previously presented) A medical device according to claim 1, wherein said first conductive metal coating covers said terminal at a minimum thickness of about 100Å.

13. (Previously presented) A medical device according to claim 12, wherein said first conductive metal coating covers said terminal at a thickness ranging between about 3000 Å and about 7,000 Å.

14. (Previously presented) A medical device according to claim 1, wherein said terminal being one of a refractory metal and a refractory metal alloy.

15. Canceled

16. (Previously presented) A medical device according to claim 1, wherein said second connector comprises a spring device.

17. (Previously presented) A medical device according to claim 1, wherein said second conductive metal coating being one of a noble metal and a noble metal alloy.

18. (Previously presented) A medical device according to claim 1, wherein said second conductive metal coating comprises titanium.

19. (Previously presented) A medical device according to claim 1, wherein said second conductive metal coating comprises niobium.

20. (Previously presented) A medical device according to claim 1, wherein said second conductive metal coating covers said ferrule at a minimum thickness of about 100Å.

21. (Original) A medical device according to claim 20, wherein said second conductive metal coating covers said ferrule at a thickness ranging between about 3000 Å and about 7,000 Å.

22. (Previously presented) A method of manufacturing a medical device, comprising the steps of:

deploying an electrical device within an encasement, said electrical device being coupled to a first electrical contact and a second electrical contact;

forming a feedthrough assembly in said encasement, said feedthrough assembly comprising:

i) a ferrule extending through said encasement and having an outer surface,

ii) a terminal extending through said ferrule, and comprising a first end,

iii) a first conductive metal coating that is more resistant to oxidation than said terminal and covers said first end of said terminal,

iv) a second conductive metal coating that is more resistant to oxidation than said ferrule and covers at least a portion of said ferrule outer surface, and

iv) a body of insulation material preventing said ferrule from electrically contacting said terminal; and

electrically coupling and mechanically engaging said first end of said terminal with said first electrical contact using a first connector; and

electrically coupling and mechanically engaging said second conductive metal coating with said second electrical contact using a second connector.

23. (Previously presented) A method according to claim 22, wherein said first connector comprises a crimping device.

24. (Previously presented) A method according to claim 22, wherein said first connector comprises a spring device.

25. (Previously presented) A method according to claim 22, wherein said first conductive metal coating being one of a noble metal and a noble metal alloy.

26. (Previously presented) A method according to claim 22, wherein said first conductive metal coating comprises rhodium.

27. (Previously presented) A method according to claim 22, wherein said first conductive metal coating comprises ruthenium.

28. (Previously presented) A method according to claim 22, wherein said first conductive metal coating comprises palladium.

29. (Previously presented) A method according to claim 22, wherein said first conductive metal coating comprises gold.

30. (Previously presented) A method according to claim 22, wherein said first conductive metal coating comprises platinum.

31. (Previously presented) A method according to claim 22, wherein said first conductive metal coating covers said terminal at a minimum thickness of about 100Å.

32. (Previously presented) A method according to claim 31, wherein said first conductive metal coating covers said terminal at a thickness ranging between about 3000 Å and about 7,000 Å.

33. (Previously presented) A method according to claim 22, wherein said step of forming a feedthrough assembly in said encasement comprises:

mechanically or chemically masking an area of said terminal that is to be surrounded by said insulating material; and

coating unmasked areas of said terminal, including said first end, with said first conductive metal.

34. (Previously presented) A method according to claim 22, wherein said step of forming a feedthrough assembly in said encasement comprises:

inserting said first end of said terminal through said ferrule;

mechanically or chemically masking said insulating material adjacent to said first end of said terminal; and

coating at least said first end of said terminal with said first conductive metal.

35. (Previously presented) A method according to claim 22, wherein step of forming a feedthrough assembly in said encasement comprises:

entirely coating said terminal with said first conductive metal coating.

36. (Previously presented) A method according to claim 22, wherein said terminal being one of a refractory metal and a refractory metal alloy.

37. Canceled

38. (Previously presented) A method according to claim 22, wherein said second connector comprises a spring device.

39. (Previously presented) A method according to claim 22, wherein said second conductive metal coating being one of a noble metal and a noble metal alloy.

40. (Previously presented) A method according to claim 22, wherein said second conductive metal coating comprises titanium.

41. (Previously presented) A method according to claim 22, wherein said second conductive metal coating comprises niobium.

42. (Previously presented) A method according to claim 22, wherein said second conductive metal coating covers said ferrule at a minimum thickness of about 100Å.

43. (Original) A method according to claim 42, wherein said second conductive metal coating covers said ferrule at a thickness ranging between about 3000 Å and about 7,000 Å.

44. (Previously presented) A feedthrough assembly for enabling external electrical contact with an electrical device disposed within a hermetically sealed encasement, said feedthrough assembly comprising:

a ferrule extending through said encasement and having an inner surface and an outer surface;

a terminal extending through said ferrule and having a first end extending into said encasement;

a first conductive metal coating covering said first end, said first coating being more resistant to oxidation than said terminal;

a second conductive metal coating covering at least a portion of said ferrule outer surface, said second coating being more resistant to oxidation than said ferrule;

a body of insulation material disposed between said terminal and said inner wall for preventing said ferrule from electrically contacting said terminal;

a first connector that is connected to said first end for electrically coupling and mechanically engaging said first end with said electrical device; and

a second connector for electrically coupling and mechanically engaging said second conductive metal coating with said electrical device.

45. (Previously presented) A feedthrough assembly according to claim 44, wherein said first conductive metal coating also covers an area of said terminal adjacent to said body of insulation material.

46. (Previously presented) A feedthrough assembly according to claim 44, wherein said first connector comprises a crimping device.

47. (Previously presented) A feedthrough assembly according to claim 44, wherein said first connector comprises a spring device.

48. (Previously presented) A feedthrough assembly according to claim 44, wherein said first conductive metal coating entirely coats said terminal.

49. (Previously presented) A feedthrough assembly according to claim 44, wherein said first conductive metal coating being one of a noble metal and a noble metal alloy.

50. (Previously presented) A feedthrough assembly according to claim 44, wherein said first conductive metal coating ~~is~~ comprises rhodium.

51. (Previously presented) A feedthrough assembly according to claim 44, wherein said first conductive metal coating comprises ruthenium.

52. (Previously presented) A feedthrough assembly according to claim 44, wherein said first conductive metal coating comprises palladium.

53. (Previously presented) A feedthrough assembly according to claim 44, wherein said first conductive metal coating comprises gold.

54. (Previously presented) A feedthrough assembly according to claim 44, wherein said first conductive metal coating comprises platinum.

55. (Previously presented) A feedthrough assembly according to claim 44, wherein said first conductive metal coating covers said terminal at a minimum thickness of about 100Å.

56. (Previously presented) A feedthrough assembly according to claim 55, wherein said first conductive metal coating covers said terminal at a thickness ranging between about 3000 Å and about 7,000 Å.

57. (Previously presented) A feedthrough assembly according to claim 44, wherein said terminal being one of a refractory metal and a refractory metal alloy.

58. Canceled

59. (Previously presented) A feedthrough assembly according to claim 44, wherein said second connector comprises a spring device.

60. (Previously presented) A feedthrough assembly according to claim 44, wherein said second conductive metal coating being one of a noble metal and a noble metal alloy.

61. (Original) A feedthrough assembly according to claim 44, wherein said second conductive metal coating comprises titanium.

62. (Original) A feedthrough assembly according to claim 44, wherein said second conductive metal coating comprises niobium.

63. (Original) A feedthrough assembly according to claim 44, wherein said second conductive metal coating covers said ferrule at a minimum thickness of about 100Å.

64. (Original) A feedthrough assembly according to claim 63, wherein said second conductive metal coating covers said ferrule at a thickness ranging between about 3000 Å and about 7,000 Å.

65. (Currently amended) A medical device, comprising:

an encasement;

an electrical device disposed within said encasement;

a first electrical contact and a second electrical contact coupled to said electrical device;

a feedthrough assembly, comprising:

i) a ferrule extending through said encasement and having an inner surface and an outer surface,

ii) a terminal extending through said ferrule and having a first end extending into said encasement,

iii) a first conductive metal coating covering said first end, said first coating being more resistant to oxidation than said terminal,

iv) a body of insulation material disposed between said terminal and said ferrule inner surface for preventing said ferrule from electrically contacting said terminal;

v) a second conductive metal coating covering at least a portion of said ferrule outer surface, said second coating being more resistant to oxidation than said ferrule; and

a first connector for electrically coupling and mechanically engaging said first end with said first electrical contact; and

a second connector comprising a spring contact for electrically coupling and mechanically engaging said second conductive metal coating with said second electrical contact.

Please ADD the following claim:

66. (NEW) A medical device, comprising:

an encasement;

an electrical device disposed within said encasement;

an electrical contact coupled to said electrical device;

a feedthrough assembly, comprising:

i) a ferrule extending through said encasement and having an inner surface and an outer surface,

ii) a terminal extending through said ferrule and having a first end extending into said encasement,

iii) a coating covering said first end, said coating being more resistant to oxidation than said terminal, and

iv) a body of insulation material disposed between said terminal and said ferrule inner surface for preventing said ferrule from electrically contacting said terminal; and

a mechanical connector for electrically coupling and mechanically engaging said first end with said electrical contact.

67. (NEW) A medical device, comprising:

an encasement;

an electrical device disposed within said encasement;

an electrical contact coupled to said electrical device;

a feedthrough assembly, comprising:

i) a ferrule extending through said encasement and having an inner surface and an outer surface,

ii) a terminal extending through said ferrule and having a first end extending into said encasement,

iii) a noble metal covering said first end to form a clad material, said noble metal being more resistant to oxidation than said terminal, and

iv) a body of insulation material disposed between said terminal and said ferrule inner surface for preventing said ferrule from electrically contacting said terminal; and

a mechanical connector for electrically coupling and mechanically engaging said first end with said electrical contact.